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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/222,906	12/30/1998	WILLIAM C. DELEEUW	22076026	2520

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EXAMINER

HUYNH, CONG LAC T

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 05/09/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/222,906

Applicant(s)

DELEEUW, WILLIAM C.

Examiner

Cong-Lac Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: CPA filed on 3/3/03 to the application filed on 12/30/98.
2. Claims 1-19 are pending in the case. Claims 1, 8, 15, 18 are independent claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding independent claim 15, it is unreasonable that the function of the extraction printer driver module is to convert **printing instructions** from the extraction application module **into a format for output by a printer.**

As disclosed in the specification "after receiving the instructions from extraction application module 208, application module 210 sends extraction printer driver module 212 **instructions on how to "draw" the pages to be printed.** Some of these instructions will likely include drawing strings of text. *Extraction printer driver module 212 then **separates the text*** within the received file into a series of text strings of varying length and **analyzes the text characteristics** of each text stringNext, extraction printer driver module 212 **creates a list including the filename** associated with each text string, the actual text string, and the text characteristics of that text

string...*Listing hierarchy information with a particular text string enables a user who subsequently searches the cataloguing system to determine the extent to which the subject of a text string may be addressed within a particular file...*" (page 10).

Thus, the extraction printer driver module **receives instructions of how to print the pages then follows the instructions to format the pages to an output format by a printer** as instructed. Furthermore, convert, by definition, is change something from one form to another form. Here, the printing instructions are not changed from one form to another form. Instead, the format of the file in the database is changed to another format for printing.

Therefore, it is clear that the function of the extraction printer driver module is to perform printing instructions **to convert a file** into a modified format for output by a printer, **not to convert printing instructions** from the extraction application module into a format for output by a printer.

Still in claim 15, the feature that "the searching application to search for information from the converted printing instructions" is not reasonable and not the feature of the invention. As mentioned above, it does not make sense to convert printing instructions into a format for output. Thus, it does not make sense to search for information from the converted printing instructions accordingly.

Further, according to the specification "Listing hierarchy information with a particular text string enables a user who subsequently searches the cataloguing system to determine the extent to which the subject of a text string may be addressed **within a particular**

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file" (page 10). It is noted that the information for searching is not from the converted printing instructions. Instead, the information for searching is the text within a particular file.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

6. Claims 1-5, 8-12, 18-19 remain rejected under 35 U.S.C. 102(e) as being anticipated by Yokomizo et al. (US Pat No. 5,907,835, 5/25/99, filed 11/17/95).

Regarding independent claim 1, Yokomizo discloses:

- processing a file with a printer driver module to generate a representation having a modified format *for output by a printer* (col 2, lines 24-27: an *electronic filing* apparatus capable of *accumulating the information to be transmitted* from an application software *to a printer driver* in the database; it was known that the format of a file for printing is modified to obtain a print format)

- extracting information from said representation (col 9, lines 22-38: "...*layout information is extracted by the block selection program ...the extracted information is the rectangular area information having the profile of text area or image area*; col 6, lines 49-53: "character information is directly extracted from the GDI codes transferred to the driver")

Regarding claim 2, which is dependent on claim 1, Yokomizo discloses that said extracted information is a text string (col 9, lines 22-38: "...the information ...as keyword, is *extracted from the text information* by the keyword extraction program..."; the information is *extracted from the text information* shows that the extracted information should be a text string).

Regarding claim 3, which is dependent on claim 2, Yokomizo discloses that said extracted information includes at least one text characteristic of said text string (col 9, lines 22-38: "...the information ...as keyword, is *extracted from the text information* by the keyword extraction program..."; the extracted information includes keywords which is the text characteristic of the text string).

Regarding claim 4, which is dependent on claim 3, Yokomizo discloses storing said text string and said at least one text characteristic of said text string in a database (col 9, lines 22-38: "...the information ...is extracted from the text information ...and *stored in the database*13 through the database API 32").

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Regarding claim 5, which is dependent on claim 4, Yokomizo discloses:

- launching an owning application used to create said file (col 10, lines 4-22: "...the *application prepares a document and stores it in the electronic file...*")
- instructing said owning application to print said file using said printer driver module (col 10, lines 30-41: "...upon *selection of a print menu, a print start message is sent to the OS....upon reception of the print start message from the application, starts the driver...having received the GDI code, the OS transfers said GDI code without change to the printer driver if the GDI printer driver is employed...*")

Claims 8-12 are for a set of instructions for executing the method claims 1-5, and are rejected under the same rationale.

Claims 18-19 are for an apparatus for method claims 1 and 5, and are rejected under the same rationale.

The apparatus further includes the extraction printer driver module to convert printing instructions from the extraction application module into a format for output.

Yokomizo discloses converting printing instructions from the extraction application module into a format for output (col 10, lines 30-58: "in case ofa GDI service for converting the GDI codes into a bit map in the OS, and the bitmap is transferred to the filing driver ... the filing driver analyzed the received GDI code ... sends printing completion...."). This shows that Yokomizo system inherently includes the extraction printer driver module.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6-7, 13-17 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Yokomizo et al. (US Pat No. 5,907,835, 5/25/99, filed 11/17/95, priority 11/18/94).

Regarding claim 6, which is dependent on claim 5, Yokomizo does not disclose:

- obtaining a current list of files and a previous list of files
- comparing said current list with said previous list to identify new files and modified files
- repeating the processing, extracting, and storing for each new file and each modified file

Instead Yokomizo discloses:

- storing extracted information in the database (col 9, lines 34-38)
- analyzing and classifying text documents (col 13, lines 42-48)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Yokomizo to include the current list of files and a previous list of files since the feature of storing extracted information in the database suggests that the data stored in the database should form a list of files in the database.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time of

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the invention was made to have modified Yokomizo to include comparing said current list with said previous list to identify new files and modified file because of the following reason. It was well known in document processing that each file when created or modified, has an associated time and date of creating and modifying to be stored along with the file. So, based on that, a file is easily recognized being a new file or a modified file.

In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have incorporated repeating the processing, extracting, and storing steps for each new file and each modified file since there is a plurality of information to be extracted to store in the database as files, the processing, extracting, and storing the files need to be repeated for each of the files.

Regarding claim 7, which is dependent on claim 6, Yokomizo discloses searching said database for at least one document which includes desired text (col 9, lines 34-38, ..the stored document can be easily viewed by the search module; col 15, lines 42-52, registering *text information in the database*...database search means for *effecting search of text information in the database*; col 16, lines 1-9, the database search means 14 searches the entire text information registered in the database...).

Claims 13-14 are for a set of instructions for executing the method claims 6-7, and are rejected under the same rationale.

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Claims 15-17 are for a system for the method claims 1 and 5, and are rejected under the same rationale.

The system further includes:

- a cataloging device which including a processor adapted to be connected to a computer readable memory
- a database and a network connected to said cataloging device
- the attraction printer driver module to convert printing instructions from the extraction application module into a format for output
- *a searching application module included within said computer readable memory, the searching application to search for information from the converted printing instructions*

Yokomizo discloses:

- a database is connected to the cataloging device (figure 1, the computer 100 is connected to the database 13)
- a network is connected to the cataloging device (col 4, lines 53-55, a database API 10-4 is used for connection to a database which can be a local one or a remote one connected through a *network*)
- *converting printing instructions from the extraction application module into a format for output (col 10, lines 30-58: "in case ofa GDI service for converting the GDI codes into a bit map in the OS, and the bitmap is transferred to the filing driver ... the filing driver analyzed the received GDI code ... sends printing*

completion...."; this shows that Yokomizo system inherently includes the extraction printer driver module)

- *the searching application module included within said computer readable memory, the searching application to search for information from the converted printing instructions (col 18, lines 22-64: "the database search means releases the document image file name or the file name but there may be instead provided application activating means and, in case document information prepared by an ordinary application is searched, such application may be activated...it is therefore rendered possible to effect text search with a high accuracy, and to effect search also for the document image entered by the scanner, with similar operations...")*

Yokomizo does not disclose a cataloging device which including a processor adapted to be connected to a computer readable memory.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Yokomizo to include the cataloging device since it was well known that any computer includes a processor which is connected to a computer readable memory. These two parts connected together are considered equivalent to the cataloging device as claimed.

Response to Arguments

9. Applicant's arguments filed 7/8/02 have been fully considered but they are not persuasive.

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Applicants argue that Yokomizo fails to disclose extracting information from the representation having a modified format generated by the printer driver module for output by a printer, as claimed in claims 1, 8, and 18. Applicants point out the reason that according to the abstract of Yokomizo, Yokomizo converts the print data format into a common document format before any keyword search is applied to the document. Therefore, no information is extracted from the print data format but rather only from the second common document format.

Examiner respectfully disagrees.

Yokomizo does teach extracting information happens by applying the OCR to the bitmap image read by the scanner. The method is followed also in *the filing driver*, but the character information is directly extracted from the GDI codes transferred to the driver (col 6, lines 49-53). Since GDI codes are codes for the modified format generated by the filing driver for output by a printer and are transferred to the filing driver, said character information is extracted from the print data format.

Applicants argue that the filing driver does not emulate the printer driver in generating a modified file having a modified format for output by a printer since Yokomizo states that "the filing driver emulates the printer driver, and can realize the GDI printer or the bitmap printer by declaring so (col 10, lines 35-37). Therefore, Yokomizo discloses the filing driver emulating a printer driver in its ability to detect the presence of the printer, not by generating a modified file having a modified format for output by a printer.

Examiner respectfully disagrees.

Emulating the printer driver means having capabilities to do whatever the printer driver does. The filing driver emulates the printer driver. The printer driver can generate a modified file, thus so does the filing driver. It is true that the filing driver has the ability to detect the presence of the printer. Said detecting ability is merely an ability to carry out an additional function of the filing driver.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sherman et al. (US Pat No. 6,031,625, 2/29/00, filed 6/13/97).

Arakawa (US Pat No. 6,188,807 B1, 2/13/01, filed 10/3/96).

Raman (US Pat No. 6,249,794 B1, 6/19/01, filed 12/23/97).

Wexler et al. (US Pat No. 6,298,357 B1, 10/2/01, filed 6/3/97).

Aritomi et al. (US Pat No. 6,445,462 B2, 9/3/02, filed 4/1/97).

Ueda et al. (US Pat No. 5,995,986, 11/30/99, filed 2/24/97).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cong-Lac Huynh whose telephone number is 703-305-0432. The examiner can normally be reached on Mon-Fri (8:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 703-308-5186. The fax phone numbers for the organization where this application or proceeding is assigned are 703-

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746-7239 for regular communications and 707-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9000.

clh
5/2/03


HEATHER R. HERNDON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100